

**Notice of Allowability**

Application No.

10/777,123

Examiner

Andrew T. Sever

Applicant(s)

KOBAYASHI ET AL.

Art Unit

2851

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-10.
3. ☒ The drawings filed on 13 February 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 2/13/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. Claims 1-10 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Independent claim 1 claims among other things a foreign matter detecting means for detecting foreign mater which enters a light path between the optical means for producing the imaging light and the projection mirror for projecting the light. This was not found in the prior art. Mirror based projection systems are well known as evidenced by US 4,765,733 to Negishi in figure 1 and US 6,231,191 to Shiraishi et al. in figure 4, however neither of these teaches a means for detecting foreign matter in the light path. Such a system in general is known; such as taught by US 5,077,467 to Barron, Jr. et al. in figure 1. Barron, however, is directed to a optical switch and although that switch could possibly be used as a foreign matter detector in a light path if applied to such an apparatus; there is no motivation other then hindsight to combine Barron with either Negishi or Shiraishi. Projectors such as Negishi or Shiraishi are not in need of this kind of switch (the switch of Barron is an on/off switch; Negishi and Shiraishi would have on/off switches of the traditional type disposed elsewhere and further probably also have an on/off switch disposed on a remote control as is known in the art. It should also be noted that such a switch as Barron placed in the projection light path would be dangerous to operate as if light has been projected for any length of time, burns could result from accidentally touching the casing in the process of using the switch. Since there is not anticipatory prior art or an obvious combination of the prior art that teaches the claimed

Art Unit: 2851

subject matter, claim 1 is allowed. Claims 2-10 are dependent on claim 1 and are accordingly allowed due to their dependency.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 2002/0122161 to Nishida et al. teaches a reflection based projector in figure 4.

US 6,705,356 to Barton et al. teaches in figure 2 a light based detector of matter entering a predefined area.

US 2004/0031095 to Yamamoto teaches in figure 3 the use of a photoelectric switch to detect the presence of matter within an opening.

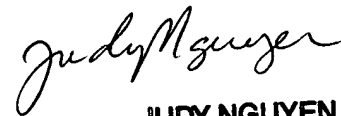
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Sever whose telephone number is 571-272-2128. The examiner can normally be reached on 8:30-5:00.

Art Unit: 2851

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AS

  
**JUDY NGUYEN**  
**SUPERVISORY PATENT EXAMINER**